

IN THE CLAIMS:

Please amend the claims as follows.

Claim 1 (Withdrawn): A photodiode array comprising a semiconductor substrate, wherein a plurality of photodiodes are formed in array on an opposite surface side to an incident surface of light to be detected, in the semiconductor substrate, and wherein a depression with a predetermined depth more depressed than a region not corresponding to a region where the plurality of photodiodes are formed, is formed in the region corresponding to the region where the plurality of photodiodes are formed, on a side of the incident surface of the light to be detected, in the semiconductor substrate.

Claim 2 (Canceled).

Claim 3 (Currently Amended): A photodiode array comprising a semiconductor substrate of a first conductive type, wherein a plurality of photodiodes are formed in array on an opposite surface side to an incident surface of light to be detected, in the semiconductor substrate, wherein a plurality of impurity diffused layers of a second conductive type are arranged in array on the opposite surface side to the incident surface of light to be detected, in the semiconductor substrate, wherein each of the plurality of photodiodes is formed by pn junction formed of the impurity diffused layer and the semiconductor substrate.

wherein a plurality of depressions with a predetermined depth more depressed than a regions not corresponding to a region where the respective photodiodes is formed, are formed in the respective regions corresponding to the respective photodiodes is formed, on a side of the incident surface of the light to be detected, in the semiconductor substrate, and

wherein adjacent depressions are in communication with each other, in the semiconductor substrate.

Claim 4 (Previously Presented): The photodiode array according to Claim 1 or 3, wherein the semiconductor substrate is provided with an impurity region between the photodiodes adjacent to each other, for separating the photodiodes from each other.

Claim 5 (Previously Presented): The photodiode array according to Claim 1 or 3, wherein a high-impurity-concentration layer of the same conductivity type as the semiconductor substrate is formed on the incident surface side of the light to be detected, in the semiconductor substrate.

Claims 6-11 (Canceled).

Claim 12 (Previously Presented): A radiation detector comprising:
the photodiode array as set forth in Claim 1 or 3; and
a scintillator panel arranged opposite to the incident surface of the light to be detected in the photodiode array, and arranged to emit light with incidence of radiation.

Claims 13-14 (Canceled).

Claim 15 (Previously Presented): The photodiode array according to Claim 4, wherein a high-impurity-concentration layer of the same conductivity type as the semiconductor substrate is formed on the incident surface side of the light to be detected, in the semiconductor substrate.

Claim 16 (Previously Presented): A radiation detector comprising:
the photodiode array as set forth in Claim 4; and
a scintillator panel arranged opposite to the incident surface of the light to be detected in the photodiode array, and arranged to emit light with incidence of radiation.

Claim 17 (Previously Presented): A radiation detector comprising:
the photodiode array as set forth in Claim 5; and
a scintillator panel arranged opposite to the incident surface of the light to be detected in the photodiode array, and arranged to emit light with incidence of radiation.